

RESPONSE TO OFFICE ACTION
Serial No. 09/865,852
Page 2 of 14

IN THE CLAIMS

1. (Currently Amended) A system for processing a substrate comprising:
a polisher having one or more polishing heads and at least a first platen and a second platen ~~one or more platens~~, the polishing heads adapted to retain the substrate against the platens during processing and providing motion therebetween;
a load cup adapted to transfer the substrate to at least one of the polishing heads;
a first motion device disposed proximate a first side of the polisher movable along the first side between at least a first position adjacent the first platen and a second position adjacent the second platen; and
a second motion device coupled to the first motion device and the load cup, the second motion device movable by the first motion device, the second motion device moving the load cup relative to the first motion device between at least a first position not accessible by the polishing head and adjacent the first side, and a second position accessible by the polishing head and inward of the first side.

2. (Original) The system of claim 1, wherein the first motion device moves substantially perpendicular to the second motion device.

3. (Original) The system of claim 1, wherein the first motion device comprises a lead screw, a ball screw, a belt, a cylinder, a solenoid, a sawyer motor or a linear actuator.

4. (Original) The system of claim 1 further comprising a substrate handler for transferring substrates to the load cups.

5. (Previously Amended) The system of claim 4, wherein the substrate handler further comprises an edge contact substrate gripper, a robot and a rotary actuator coupling the gripper to the robot.

249374

RESPONSE TO OFFICE ACTION
Serial No. 09/865,852
Page 3 of 14

6. (Original) The system of claim 5 further comprising:
a factory interface, wherein the substrate handler transfers substrates between the factory interface and the load cup;

7. (Original) The system of claim 6 further comprising:
a plurality of substrate storage cassettes coupled to the factory interface.

8. (Original) The system of claim 6 further comprising a cleaner disposed in the factory interface.

9. (Original) The system of claim 6 further comprising an input module disposed in the factory interface proximate the polisher.

10. (Original) The system of claim 9, wherein the input module is adapted to retain the substrate in a vertical position.

11. (Original) The system of claim 6 further comprising:
a plurality of substrate storage cassette coupled to the factory interface;
an input module disposed in the factory interface proximate the polisher; and
a factory interface robot for transferring substrates between the input module and the storage cassettes.

12. (Original) The system of claim 1 further comprising:
a third motion device disposed proximate a second side of the polisher, the third motion device moving along the second side between at least a first position and a second position;
a second load cup; and
a fourth motion device coupled to the third motion device and the second load cup, the fourth motion device moving the second load cup between at least a first position proximate the second side and a second position inward of the second side.

249374

RESPONSE TO OFFICE ACTION
Serial No. 09/865,852
Page 4 of 14

13. (Original) The system of claim 12, wherein the first side of the polisher is opposite the second side of the polisher.

14. (Original) The system of claim 12, wherein the one or more platens comprises two platens.

15. (Original) The system of claim 12, wherein the one or more platens comprises four platens.

16. (Original) The system of claim 15, wherein two platens comprise a buffing station and two platens comprise a polishing station.

17. (Original) The system of claim 12 further comprising a polishing pad disposed on at least one of the platens.

18. (Original) The system of claim 12 further comprising a polishing web disposed on at least one of the platens.

19. (Original) The system of claim 12 further comprising a carousel disposed between the platens and supporting the polishing heads.

20. (Original) The system of claim 15 further comprising:
a first drive system coupled to the polisher and supporting a first pair of polishing heads; and
a second drive system coupled to the polisher and supporting a second pair of polishing heads.

249374

RESPONSE TO OFFICE ACTION

Serial No. 09/865,852

Page 5 of 14

21. (Original) A system for processing a substrate comprising:
a polisher having one or more polishing heads and one or more platens, the
polishing heads adapted to retain the substrate against the platens during processing
and providing motion therebetween;
a first motion device disposed adjacent a first side of the polisher, the first motion
device being movable along the first side of the polisher;
a first load cup coupled to the first motion device;
a second motion device disposed adjacent a second side of the polisher, the
second motion device being movable along the second side of the polisher, the second
side being opposite the first side of the polisher; and
a second load cup coupled to the second motion device.

22. (Original) The system of claim 21, wherein the first motion device further
comprises a third motion device coupled to the first load cup, the third motion device
adapted to move the first load cup between a first position proximate the first side of the
polishing and a second inward position.

23. (Previously Amended) The system of claim 22, wherein the second motion
device further comprises a fourth motion device coupled to the second load cup, the
fourth motion device adapted to move the second load cup between a first position
proximate the second side of the polishing and a second inward position.

24. (Original) The system of claim 21 further comprising a substrate handler
disposed on a third side of the polisher.

25. (Previously Amended) The system of claim 24 further comprising:
a plurality of substrate storage cassettes coupled to the factory interface;
an input module disposed in the factory interface proximate the third side of the
polisher; and

249374

RESPONSE TO OFFICE ACTION
Serial No. 09/865,852
Page 6 of 14

a factory interface robot for transferring substrates between the input module and the storage cassettes.

26. (Original) The system of claim 25, wherein the input module is adapted to retain the substrate in a vertical position.

27. (Original) The system of claim 24, wherein the substrate handler further comprises an edge contact substrate gripper, a robot and a rotary actuator coupling the gripper to the robot.

28. (Original) The system of claim 21 further comprising a cleaner disposed proximate a third side of the polisher.

29. (Original) The system of claim 21, wherein the one or more platens comprises two platens.

30. (Original) The system of claim 21, wherein the one or more platens comprises four platens.

31. (Original) The system of claim 30, wherein two platens comprise a buffing station and two platens comprise a polishing station.

32. (Original) The system of claim 21 further comprising a polishing pad disposed on at least one of the platens.

33. (Original) The system of claim 21 further comprising a polishing web disposed on at least one of the platens.

249374

RESPONSE TO OFFICE ACTION
Serial No. 09/865,852
Page 7 of 14

34. (Original) The system of claim 21 further comprising a carousel disposed between the platens and supporting the polishing heads.

35. (Original) The system of claim 21, wherein the first motion device comprises a lead screw, a ball screw, a cylinder, a solenoid, a sawyer motor or a linear actuator.

36. (Original) A system for processing a substrate comprising:

a polisher having one or more polishing heads and one or more platens, the polishing heads adapted to retain the substrate against the platens during processing, the platens and polishing heads having a relative motion therebetween;

a first motion device disposed adjacent a first side of the polisher, the first motion device being movable along the first side of the polisher;

a first load cup coupled to the first motion device;

a second motion device disposed adjacent a second side of the polisher, the second motion device being movable along the second side of the polisher, the second side being opposite the first side of the polisher;

a second load cup coupled to the second motion device; and

a substrate handler disposed proximate a third side of the polisher.

37. (Original) The system of claim 36, wherein the first motion device further comprises:

a third motion device coupled to the first load cup, the third motion device adapted to move the first load cup between a first position proximate the first side of the polishing and a second inward position; and

wherein the second motion device further comprises a fourth motion device coupled to the second load cup, the fourth motion device adapted to move the second load cup between a first position proximate the second side of the polishing and a second inward position.

RESPONSE TO OFFICE ACTION
Serial No. 09/865,852
Page 8 of 14

38. (Original) The system of claim 37, wherein the one or more platens comprises four platens.

39. (Original) The system of claim 21 further comprising a polishing pad or a polishing web disposed on at least one of the platens.

40. (Previously Amended) A system for processing substrates comprising:

a polisher having a first drive system and a second drive system, each drive system having at least one polishing head coupled thereto;

a first motion device coupled to a first side of the polisher, the first motion device comprising:

a substrate gripper movably disposed along the first side of the polisher;

at least one shuttle table having one or more load cups adapted to transfer substrates between the gripper and the polishing head of the first drive system; and

a second motion device coupled to a second side of the polisher, the second motion device comprising:

a substrate gripper movably disposed along the first side of the polisher;

at least one shuttle table having one or more load cups adapted to transfer substrates between the gripper and the polishing head of the second drive system.

41-55. (Cancelled)

56. (Currently Amended) A system for processing a substrate comprising:

a platen;

a polishing head adapted to retain the substrate against the platen during processing and providing motion therebetween;

a load cup adapted to transfer the substrate to the polishing head; and

249374

RESPONSE TO OFFICE ACTION
Serial No. 09/865,852
Page 9 of 14

a motion device coupled to the load cup, wherein the motion device is adapted to move the load cup laterally along two independent axes between at least a first position that is not accessible by the polishing head and at least a second position that is accessible by the polishing head.

57. (Currently Amended) A system for processing a substrate comprising:

a polisher having one or more polishing heads and one or more platens, the polishing heads adapted to retain the substrate against the platens during processing and providing motion therebetween;

a first motion device disposed proximate a first side of the polisher movable along the first side between at least a first position and a second position;

a second motion device coupled to and movable by the first motion device, the second motion device independently movable between at least a first position not accessible by the polishing heads and adjacent the first side, and a second position accessible by the polishing heads and inward of the first side; and

a load cup coupled to the second motion device, wherein the load cup is adapted to transfer the substrate to at least one of the polishing heads.

58. (Previously Presented) The system of claim 57, further comprising:

a factory interface; and

a substrate handler for transferring substrates between the factory interface and the load cup, wherein the substrate handler comprises:

an edge contact substrate gripper;

a robot; and

a rotary actuator coupling the gripper to the robot.

59. (Previously Presented) The system of claim 58, further comprising:

a plurality of substrate storage cassette coupled to the factory interface;

an input module disposed in the factory interface proximate the polisher; and

RESPONSE TO OFFICE ACTION
Serial No. 09/865,852
Page 10 of 14

a factory interface robot for transferring substrates between the input module and the storage cassettes.

60. (Previously Presented) The system of claim 57 further comprising:
a third motion device disposed proximate a second side of the polisher movable along the second side between at least a first position and a second position;
a fourth motion device coupled to and movable by the third motion device, the fourth motion device independently movable between at least a first position adjacent the second side and a second position inward of the second side; and
a load cup coupled to the fourth motion device, wherein the load cup is adapted to transfer the substrate to at least one of the polishing heads.

61. (Previously Presented) The system of claim 60 further comprising a polishing pad or a polishing web disposed on at least one of the platens.

62. (Previously Presented) The system of claim 60 further comprising a carousel disposed between the platens and supporting the polishing heads.

63. (Previously Presented) The system of claim 60, wherein the one or more platens comprises four platens.

64. (Previously Presented) The system of claim 63, wherein two platens comprise a buffing station and two platens comprise a polishing station.

65. (Previously Presented) The system of claim 63 further comprising:
a first drive system coupled to the polisher and supporting a first pair of polishing heads; and
a second drive system coupled to the polisher and supporting a second pair of polishing heads.

249374